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Mary M. Somerville

University of Colorado, Denver, msomerville@pacific.edu

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Participatory Action Research: Improving Professional Practices and Local Situations

Contributors: Mary M. Somerville

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Abstract

Participatory Action Research employs social sciences research methods to develop actionable local knowledge. In seeking meaningful and inclusive ways of generating knowledge together in the workplace, Participatory Action Research practitioner–researchers combine action and reflection with theory and practice to improve local situations and enhance professional practices. Working *with and for* others, co-researchers evolve learning cycles that are practical and emergent, participatory and collaborative, emancipatory and democratic, and interpretive and local. In this case, the cyclical ‘methods in action’ orientation of Participatory Action Research is illustrated through examples from a North American academic library facility renovation initiative. Practical advice is offered on proposal planning and study implementation in organizational settings. In addition, learning outcomes and discussion questions enable reflective project planning and iterative evaluation.

Learning Outcomes

By the end of the case study, you should understand

- How to recognize and define a research question in the workplace with the aim of improving professional practice
 - How to use a cyclical learning process to increase domain knowledge and generate professional insight
 - How to create an action research study proposal that anticipates project elements and furthers learning outcomes
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Introduction

For centuries, prompted by the development of print in the 15th century and the industrialization of print in the 19th century, academic libraries have been designed as a place where information is acquired, housed, organized, and accessed. Since the advent of the World Wide Web, however, disruptive forces in both the scholarly community ecosystem and higher education environment necessitate reconsideration of these comfortable, conventional assumptions about libraries as warehouses and librarians as intermediaries.

The ubiquitous presence of information and communication technologies and the concurrent migration from print to electronic publications now makes it possible to easily discover academic information in online environments, including Google Scholar. Students no longer need to trek to the library building to search a catalog or index or—given the prevalence of e-books and e-journals—to locate scholarly content. At the same time, the exponential growth in data,

information, and knowledge production worldwide has prompted widespread recognition that disciplinary currency now requires knowing how to learn. Lecture content delivered from yellowed notes is widely understood as insufficient preparation for graduated students' workplace readiness. As a consequence, within North American universities, professors increasingly require collaborative work that transforms students from passive information consumers to active knowledge creators.

In combination, the disruptive and irreversible changes in the scholarly ecosystem, academic environment, and contemporary workplace have prompted growing recognition of the social aspect of learning and, it naturally follows, the necessity of reconsidering cherished higher education teaching methods. As a consequence, academic libraries are assuming new missions in new or redesigned physical places for 21st-century learners. Since 2003, Participatory Action Research (PAR) projects in three North American academic libraries have demonstrated the efficacy of working *with and for* campus constituencies to co-create ideal futures. This 'methods in action' case study offers highlights of a PAR implementation on a university campus, initiated within the academic library in 2009 and continuing to the present.

Methods in Action

PAR typically begins with the following question: 'How can we improve the situation?' Relatedly, in a workplace setting, participants often ask, 'What would effective professional practice look like?' In other words, the focus is not to make a high-level theoretical contribution to the field of knowledge, as is typical of traditional academic research. Rather, participants initiate a cycle of inquiry and action that ensures learning and, thereby, informs being and acting in the workplace through integrating local (low level) theory and practice.

In that spirit, within a year of commencing employment in July 2008 as university librarian and library director at a comprehensive North American university, I initiated a PAR initiative for the twofold purpose of catalyzing workplace transformation and stimulating campus engagement. The shared focus of inquiry was space utilization within a library building opened in 1976. I selected PAR, which fosters collaborative inquiry-based decision making and action taking, because it would necessarily frame the library discussion within the broader context of higher education. Within the library organization, receptivity was motivated by widespread recognition that librarians needed to better anticipate and support rapidly changing practices in higher education and scholarly communications. It followed that, as one consequence of significant transformation in the external environment, library facilities must be redesigned and, thereby, repurposed.

To ensure organizational readiness, I provided social science research methods workshops for

all interested library staff members (Brown-Sica, Sobel, & Rogers, 2010). The workshop presenter (Erika Rogers) and I had worked together previously in another organization, so I knew that we shared a deep and abiding commitment to participatory, inclusive design (Somerville, Rogers, Mirijamdotter, & Partridge, 2007). In addition, I provided systems co-design coaching services, also delivered by a trusted colleague (Anita Mirijamdotter) whom I had worked with before (Somerville, 2009), to ensure explicit workplace learning processes and associated infrastructure (Somerville & Mirijamdotter, 2014). Mirijamdotter's organizational effectiveness consultancy both informed workplace re-organization decisions as well as communications, decision making, and planning systems co-design. The creation of learning systems and articulation of information practices, although outside the purview of this article, are essential components of nimble learning organizations and of successful PAR implementation as well.

In summer 2009, Rogers prepared workshop participants for data-rich and action-oriented investigations that could engage library staff (professional and classified), program beneficiaries (students), and campus stakeholders (faculty and administrators). Workshop participants came to understand that employing research methods within a PAR effort could guide information gathering, interpretation, and dissemination in a continuous learning cycle (Argyris & Schön, 1991; Heron & Reason, 2001) that produced reflective practitioners (Schön, 1983) who learn through collaborative inquiry processes *with and for* concerned others.

Enabled with rudimentary knowledge of basic research methodologies, librarians next had to clarify the research focus. Recalling earlier successes in using the 'library as laboratory', I proposed that interested librarians and campus planners partner with architecture professors teaching graduate level studio courses. I felt certain that the students would generate both innovative design ideas and core redesign questions. The results confirmed the value of this consultative approach, which engaged students, planners, and librarians in question raising and question clarification over two semesters. Initially, students explored these questions: 'What type of physical environment, technology, and services are needed to support and enhance the learning and research experience of the Auraria Library community?' and 'How could the Library involve campus students, faculty, staff, and administrators in co-creating the re-design concept?' (Brown-Sica, Sobel, & Rogers, 2010). Over time, lively conversations between students and their clients (academic librarians and campus planners) catalyzed a larger question: 'What is a library?'

Subsequent analysis by a large, representative library governance and coordination body, the Shared Leadership Team, produced more granular questions, including 'How should the library, and its services and collections, serve the institution?' 'What programs not in the library at

present, should be in the facility in the future?’ ‘How does the library add value to the academic experiences of the students and faculty?’ ‘How is the library building presently perceived, and how can it function in the future as an interdependent facility with other learning and teaching spaces on campus?’ ‘How much of the traditional library program must remain in the redesigned facility?’ ‘How does the library reflect the vision of the institution of which it is a part, and how could the library better anticipate shifting institutional priorities?’ Following refinement through a shared leadership process, these thought questions were integrated into formal planning processes within the newly reorganized library workplace.

Concurrently, to exercise research skills cultivated in summer workshops, librarians commenced data collection activities. Research methods included online and ‘paper and pencil’ surveys, semi-structured interviews, ‘library as lab’ course assignments, student focus groups, formal constituency meetings, and participant observation logs. These data sources were supplemented by service usage statistics, time-lapse photography imagery, Google website analytics, architectural study models, library white papers, and library program plans. Although mixed methods were employed, qualitative studies proved especially valuable since information was ‘allowed to emerge from participants in the project’ (Creswell, 2014, p. 17).

A working group within the library coordinated data collection and data analysis. They intentionally engaged all interested library staff in both study implementation—for instance, distributing student surveys and maintaining observation logs—and data analysis. Research status updates were regularly offered in monthly open forums. Data and analysis, as well as working group meeting minutes, were posted on the library intranet, to ensure ready access. In addition, following a juried evaluation of students' final studio projects by community architects and librarian clients, the most highly ranked student projects were presented in a library-wide open forum. In these various ways, research and design conversance was intentionally furthered throughout the library.

In addition, clear priorities emerged for facilities improvements. At the top of the list were computers, furniture, and outlets. Using unencumbered end-of-the-year operating funds, the Library immediately added 180 more electrical outlets at a cost of US\$110,000. Given the socio-economic characteristics of the student population, a significant percentage of whom lack personal computers and Internet service at home, and the growing expectation that assignments are completed with enabling technology, the Library also initiated grant-writing activities, which have raised over US\$100,000 to date for new hardware and software. Grant requests have also funded new furniture, given the evidence produced in the PAR initiative: over 6000 visitors a day (gate count) and fewer than 1000 chairs. Other PAR findings inform renovation design decisions, including more attractive environment, better noise control,

improved way finding, better task lighting, healthier café menu, stronger wireless signal, and more study rooms.

In my high-level role as orchestrator of inclusive research and learning activities conducted within a PAR framework, I ensure collaborative clarification of the role and value of the library in the educational enterprise. These insights are then used to inform redesign of facilities and reinvention of programming, such as research consultation services and collaborative computing zones. Necessarily, because additional funding was needed for architectural design and project construction services, I regularly update campus leadership in face-to-face meetings designed to encourage candid feedback and political advice. Since the desired outcome of the participatory action-oriented activities is capital construction funding from the State of Colorado, senior university leadership recommended that the necessary next step for campus engagement—visioning—required a professionally facilitated charrette. The French word *charrette* refers to a co-design process, including participatory prototyping, to progress planning to conceptual design renderings with implementable outcomes. In this instance, involvement of professors, administrators, planners, students, donors, and librarians intended to avoid library-centric assumptions and encourage user-centered outcomes.

The intention of a charrette is to advance feasible but creative solutions for real clients and users. Within a PAR framework, other outcomes include collaboration negotiation of shared vision and design elements. In the case of the Auraria Library, collective learning was advanced through several standard charrette processes for brainstorming techniques for generating issues and concepts, and visualizing solutions and alternatives (Howard & Somerville, 2014). Group learning processes were characteristically visual—since architects use a visual ‘vocabulary’, and included a mind expansion exercise and a building expanding activity, culminating in conceptual model building. Architects used these data to produce renderings illustrating three design approaches. Charrette participant feedback informed architects’ creation of a final design reflecting preferred options. The final report included a phase initiative plan with estimated budgets, which provided the documentation needed for grant proposals as well as State appropriation requests. Over a 2-year period, US\$21.8 million was appropriated by the legislature for holistic design and construction projects. An additional US\$150,000 for renovation was received from local foundations.

Now, 6 years after the introduction of PAR in the workplace, as a result of active learning through action research, librarians have collectively expanded their information horizons and professional practices, thereby gaining transformative insights into the question ‘What would more effective professional practice look like?’ From their firsthand experiences, librarians now know the value of PAR as a strategic element of organizational learning, whereby an ‘action

researcher enters a problematical situation and becomes a participant as well as a researcher, using reflections on the experience gained as his or her source of learning' (Checkland, 2011, p. 499).

Having witnessed the potential of the cyclical PAR process, library leaders and practitioner–researchers are now planning to re-engage human factors, marketing, landscape architecture, and architecture professors and students to continue to inquire together to co-create ideal futures throughout the holistic design and project construction process. A library design oversight committee, comprised of architects, administrators, professors, librarians, and planners, has also been appointed to oversee the continuance of the synergistic PAR initiative, toward the practical outcome of generating facilities improvement and associated program ideas that amplify library services, programs, expertise, and impact.

Transferable Insights

The PAR initiative at Auraria Library illustrates transferable action research elements transferable to other organizational research settings. To begin, identify a research issue. Collaboratively identify research aims and formulate research questions. This will inform decisions about research study design, which can include qualitative, quantitative, and mixed methods. Also clarify criteria and standards by which to judge the relative quality and importance of data from various sources. This evaluative framework will inform analysis and interpretation of findings—in other words, generate 'evidence' for decision making and action taking. In presenting outcomes, explain the larger context and suggest the potential significance of the research process as well as the findings. Generate action-oriented theory from the research findings—for example, in the Auraria Library case, we further a sense of engagement by pairing images of the future that we seek to create with collaboration principles that we intend to use to further inquiry, discovery, and creativity for and with our diverse campus constituencies. Also modify workplace practices in light of the evaluation of the theory to ensure organizational readiness to take action in light of the practical theoretical insight(s). Finally, write a report for in-house documentation and, as well, broad dissemination of both research process insights and research study findings (adapted from McNiff & Whitehead, 2010, p. 10).

Then, in an iterative fashion, this process is often begun again, as practitioner–researchers aspire to continue to improve professional practice and local situations. In subsequent iterations, the research question, the research methodology, and the evaluative criteria may all change slightly, reflective of advancement in collective understanding. Additionally, aspects of the local situation may have changed based on improvements resulting from the first iteration or phase.

PAR studies aim to show how findings can lead to changed and improved practices and situations, through validation and evaluation processes. In traditional research, the expectation is that users of research (practitioners) will improve their practices through applying other researchers' propositional theory. In action research, the expectation is that practitioner–researchers will improve their practice through studying and thereby learning from existing practices within local circumstances, and will explain how and why (or why not) improvement(s) happen, using locally relevant validation processes. Research outcomes necessarily offer both explanations for ongoing improvements of practice and demonstrate the validity of the explanations. It is therefore important that practitioners early on articulate how and why their claims and ‘living theories’ (Whitehead & McNiff, 2006), subject to change as new insights occur, should be seen as valid so findings are not dismissed as mere opinions.

Research Considerations

PAR conducted in the workplace aims to improve professional practices and local situations. Therefore—whether conducted as an academic requirement (i.e. thesis or dissertation) or workplace initiative, the work must be supported through appropriate conditions and resources that must come in the form of people and organizational structures (McNiff & Whitehead, 2010), including the following.

Will the People You Are Working with Support Your Efforts?

Once you have negotiated the base rules (e.g. by receiving formal approval of a study ethics form or official notification of permission to proceed), will you be able to proceed unhindered? It is essential to get clearances so that it is clear to all concerned that you have observed workplace conventions, including clear endorsement from workplace decision makers.

Will Necessary People Be Available to You?

Will you find sufficient and appropriate people to be your ‘critical friends’ (who offer constructive feedback along the way), research partners, or evaluation validators? The latter refers to inter-rater reliability—the idea that if someone else were to examine your data, they would make the same interpretations. So while this is not required in action research, it is a consideration that can contribute immensely to real-world adoption of results. Therefore, time—which is an organizational resource—like money (if needed), must be allocated formally or informally.

What Is the Cultural Climate Like?

Are people open to new ideas? Knowing this will influence how, when, and what you share as action research agenda items. If the culture is conservative or change averse, take that into

consideration in elaborating an action plan. Be realistic. Similarly, if the culture has embraced a particular decision-making framework—such as, at the University of Colorado Denver (UC Denver) Library, adoption of collaborative evidence-based decision making—present your proposal and findings within those defining workplace culture values and associated processes or procedures. At the same time, be nimble and able to present your approach and discoveries to others in ways that acknowledge their values (in the UC Denver case, stressing the US\$332 million savings to State citizens if the Library were progressively renovated rather than newly constructed).

What Is the Supervisor or Other Decision Maker(s) Like?

Managers exhibit varying degrees of openness to new ideas. This establishes the cultural climate and collegial expectations. Therefore, if employed in a workplace proposed for a PAR project, consider the following: Is your supervisor sympathetic to you? Is he or she open to the idea of professional learning? Is he or she open to change? Is he or she interested? Does he or she want to be kept informed, or is he or she content to let you work independently? Similarly, in a situation where you are proposing an action research project but not employed at the organization, confirm that the decision makers, culture shapers, and/or thought leaders endorse both the action orientation of action research and the participatory element of PAR.

Situational Assessment

In PAR, organizational context assumes considerable importance to both conducting research and implementing discoveries. These guiding questions can inform a situational assessment (McNiff & Whitehead, 2010):

- where are you positioned in the structure of the organization?
- do you work in a hierarchical structure in which you are directly answerable to a line manager? Do you need to check with your manager about your actions and opinions?
- what is your functional role in the organization? Does this enable or disable your ability to conduct an action research study?
- does your role carry specific expectations? Are you expected to conform to established rules and practices? Will your research compromise you in relation to your role? Or are you perhaps in a position to use your power to influence existing situations and even structures?
- what will you do if your research reveals injustices, or you come to understand that things should change?
- what happens if you find yourself in conflict with established norms and structures or if you raise inconvenient or unconventional questions?

While these circumstances are perhaps less relevant to graduate students, they do represent real considerations in real-world organizations, given the essential action orientation of PAR—to take action to improve. Also, since action research is a living philosophy and practice, local conditions would ideally offer the possibility of continued workplace learning through future research iterations.

Methodological Qualities

PAR offers an action-oriented and learning-centered approach for transitioning librarians (and other practitioners) into inclusive co-designers of contemporary organizational services, programs, and facilities. Significantly, this participatory decision-making approach is grounded in the very learning that it intends to further in others through re-invented facilities and programs (Somerville & Brown-Sica, 2011, p. 670). The fundamental PAR assumption is that individuals and groups can learn to create knowledge based on their information experiences, through observing and reflecting on that experience, by forming abstract concepts and generalizations, and by testing the implications of these concepts in specific situations, which initiates a new learning cycle.

Necessarily, then, reflective PAR practitioners learn through collaborative inquiry processes that foster self-evaluation, engage participatory investigation, and advance professional development (Zuber-Skerritt, 1992). PAR represents a distinctive social science research approach that is

Practical and emergent. The results and insights gained from the research are not only of theoretical importance—and therefore advance knowledge in the field—but also lead to practical improvements in individual and group practices and local situations during and after the research process, since insights emerge from local situations investigated by local stakeholders.

Participatory and collaborative. The researchers are co-workers conducting research with and for members of the constituencies concerned with the problematic (or unknown) situation and its actual improvement—not experts studying ‘subjects’.

Emancipatory and democratic. The relationships among co-researchers are egalitarian rather than hierarchical, because all participants are assumed to be participating in and contributing equally to the study.

Interpretive and local. Social inquiry is assumed to generate insights of probable relevance to local problematic situations based on views and interpretations of the people involved in the

inquiry—rather than on positivistic notions of right or wrong answers (adapted from Somerville & Brown-Sica, 2011).

Methodological Praxis

PAR represents ‘an *orientation to inquiry* ... on significant practical issues ... it is a practice of participation, engaging those who might otherwise be subjects of research or recipients of interventions ... as inquiring co-researchers [into] change *with others*’ (Reason & Bradbury, 2008, p. 1). Within an action research project, communities of inquiry and action evolve to address questions and issues that are significant for those who participate as co-researchers. Iterative inquiry-in-action cycles advance exploration, action, and reflection phases as co-researchers explore problematical situations and gather (that which is deemed) evidence, followed by ‘sense making’ together. Oftentimes, collaborative relationships generate new ‘communication spaces’ (Reason & Bradbury, 2008, p. 3) in which dialogue and development flourish. As awareness of many ways of knowing emerges, participants naturally expand definitions of acceptable ‘authoritative evidence’ that is generated in inquiry and expressed in presentations. As a living emergent process, PAR projects develop and change as those engaged deepen their understanding of the issues to be addressed and develop their capacity as individual and collective co-inquirers (Whitehead & McNiff, 2006).

The seminal definition of action research cycles of action and reflection is attributed to Kurt Lewin, who described the process in 1948 in these terms: ‘It proceeds in a spiral of steps, each of which is composed of a circle of planning, action and fact finding about the results of the action’ (Lewin 1997, p. 146). After more than 60 years, Peter Reason and Hilary Bradbury (2008, p. 4) have expanded on the definition, stating,

Action research is a participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities.

Realization of the full potential of PAR requires expression of these essential elements (adapted from McNiff & Whitehead, 2010, p. 17):

- practice-based inquiry demands higher order questioning to advance both research and action.
- practice improvements (both action and research) create new knowledge and generate living theories.

- action research projects focus on learning improvement, not on behavior improvement (although behavioral changes may be an outcome), and enables participants to use information to learn.
- research project design emphasizes the values base of practice (both professional values of the person and professional values of the field), expressed through collaborative creation of knowledge of practices.
- research processes involve investigation and deconstruction (in essence, ‘taking apart’ and then ‘reconstructing’ understanding of the current and potential situation).
- research projects are intentionally political (while proceeding in ways that ensure the likelihood of local adoption of findings).

Therefore, action research as a practice for the systemic development of knowing and knowledge operates from different assumptions than conventional academic research. Because ‘it has different purposes, is based in different relationships, has different ways of conceiving knowledge and its relation to practice’ (Reason & Bradbury, 2008, p. 4), it reflects a novel approach to understanding the nature of inquiry and its outcomes. In the Auraria Library instance—which focuses on workplace implications—the primary purpose of PAR is to produce practical knowledge that is useful in guiding professionals and stakeholders in taking actions to improve. In addition to working toward practical outcomes, PAR also aims to create new forms of understanding, ‘since action without reflection and understanding is blind, just as theory without action is meaningless’ (Reason & Bradbury, 2008, p. 4). Ultimately, since PAR is concerned with the development of living knowledge, it aims to develop skills of inquiry within communities of practice in learning organizations. Therefore, ‘it is a verb rather than a noun’ (Reason & Bradbury, 2008, p. 5), deeply rooted in organizational development in which participants individually and collectively discover the capacity to construct and use knowledge (Freire, 1970) through sharing information and working together.

Exercises and Discussion Questions

1. What are the main features of PAR?
2. How would you ensure advancement of your own learning, as well as that of other participants, and how would these considerations potentially inform your and their actions?
3. How would you collaboratively design an overall research methodology, including a clear explanation of choices made?
4. How would you ensure ethical data collection and management processes, including permissions clearance?
5. How would you determine what kinds of data to gather and how to gather, organize, and manage it, within a PAR framework?

6. How do you differentiate between data and evidence? Relatedly, explain the difference between analyzing and interpreting.
7. How do you demonstrate the validity of your knowledge claims or, stated differently, how would you generate criteria and standards that are appropriate for PAR, and how do these differ from the criteria and standards of judgment of traditional forms of social science research?
8. How would you communicate PAR aims and outcomes to various stakeholder groups, within the general PAR framework of philosophy, principles, and methodologies, with the aim of ensuring real-world improvements in local situations and professional practice?

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